SELENIUM
LOUDSPEAKERS

PROFESSIONAL LINE - Driver

DT150 OEM

The DT150 OEM is a driver specially designed to offer a smooth extended frequency response over a broad band, from mid to highs with high efficiency.

Ideal for compact two way systems that require excellent performance with high power output and superb frequency response.

The magnetic assembly with high flux density is provided by FEA (Finite Element Analisys) software.

The 1" phenolic dome diaphragm is light weight and extremely reliable, covering the frequency range from 1,500 Hz to 15,000 Hz with high fidelity.

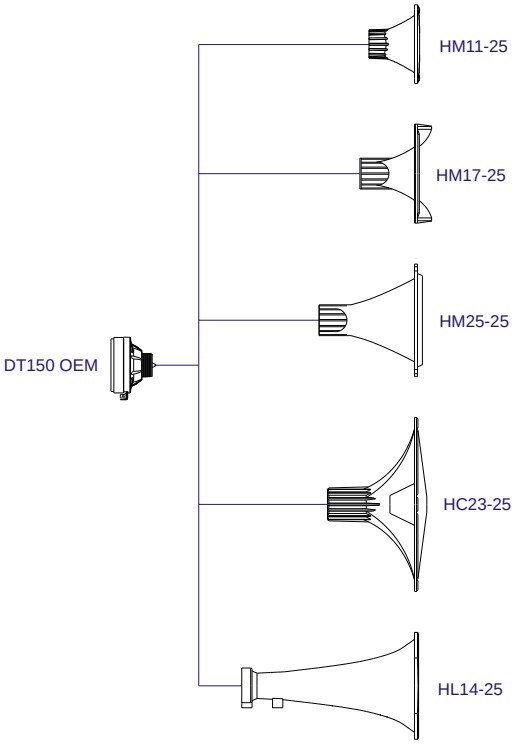
The voice coil is made of high temperature wire wound on Nomex® former to withstand high operating temperatures.

The DT150 OEM is capable of handling up to 75 watts RMS or 150 watts (Musical Program) if connected to a 12 dB/octave crossover with a 4,000 Hz cut-off frequency.

The driver has a standard $1^{3}/_{8}$" - 18 TPI screw mounting.

A precisely engineered diaphragm structure and alignment mechanism allows for easy, reliable and cost effective repair in case of diaphragm failure.

DRIVER x HORN CONNECTION



SPECIFICATIONS

Nominal impedance	8	
Minimum impedance @ 6,300 Hz	9.6	
Power handling		
Musical Program(w/ xover 2,000 Hz 12 dB / oct)[1]	80	W
Musical Program(w/ xover 4,000 Hz 12 dB / oct)[1]	150	W
Sensitivity		
On horn, 2.83V@1m, on axis[2]	108	dB SPL
Frequency response @ -6 dB	1,500 to 15,000	Hz
Throat diameter	25 (1)	mm (in)
Diaphragm material	Phenolic	
Voice coil diameter	25 (1)	mm (in)
Re	8.0	
Flux density	1.50	T
Minimum recommended crossover (12 dB / oct)	4,000	Hz

[1] Power handling specifications refer to normal speech and/or music program material, reproduced by an amplifier producing no more than 5% distortion. Power is calculated as true RMS voltage squared divided by the nominal impedance of the loudspeaker. This voltage is measured at the input of the recommended passive crossover when placed between the power amplifier and loudspeaker.
Musical Program= 2 x W RMS.

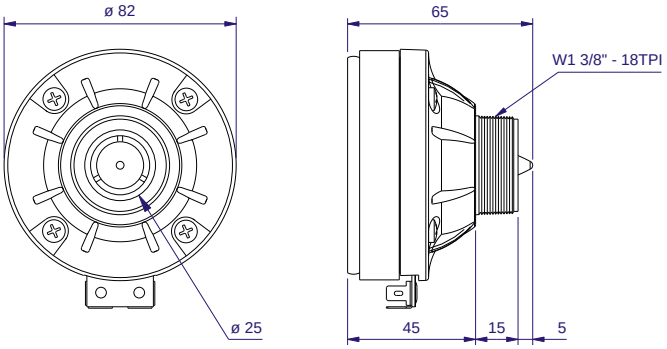
[2] Measured with HM11-25 horn, 2,000 - 8,000 Hz average.

ADDITIONAL INFORMATION

Magnet material	Barium ferrite	
Magnet weight	290 (10)	g (oz)
Magnet diameter x depth	82 x 14 (3.23 x 0.55)	mm (in)
Magnetic assembly weight	665 (1.47)	g (lb)
Housing material	Plastic	
Housing finish	Black	
Magnetic assembly steel finish	Zinc-plated	
Voice coil material	CCAW	
Voice coil former material	Nomex®	
Voice coil winding length	2.4 (7.87)	m (ft)
Voice coil winding depth	2.0 (0.08)	mm (in)
Wire temperature coefficient of resistance ( )	0.00435	1/°C
Volume displaced by driver	0.3 (0.011)	l (ft^3)
Net weight	735 (1.62)	g (lb)
Gross weight (12 pieces per carton)	10,000 (22.05)	g (lb)
Carton dimensions (W x D x H)	32 x 36 x 13.5 (12.6 x 14.2 x 5.3)	cm (in)

MOUNTING INFORMATION

Horn connection	Screw-on $1^{3}/_{8}$" - 18 TPI
Connectors	Push on terminals
Polarity	Positive voltage applied to the positive (+) terminal gives diaphragm motion toward the throat



Dimensions in mm.

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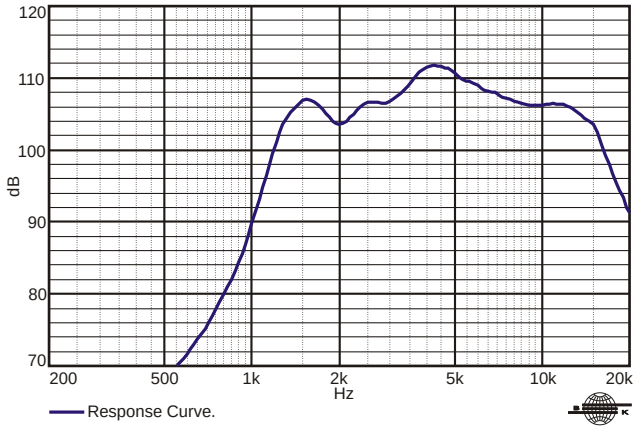
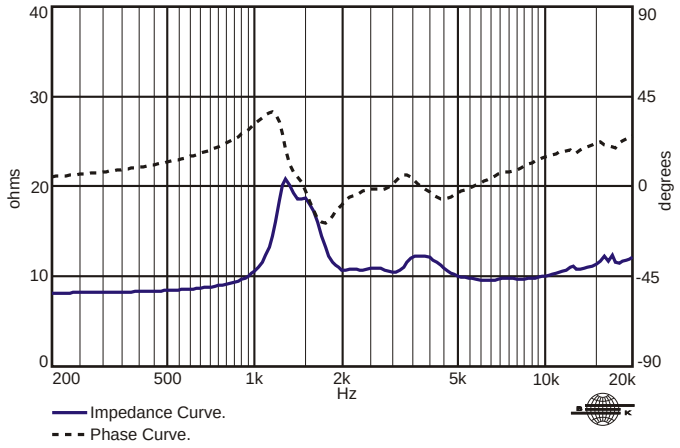
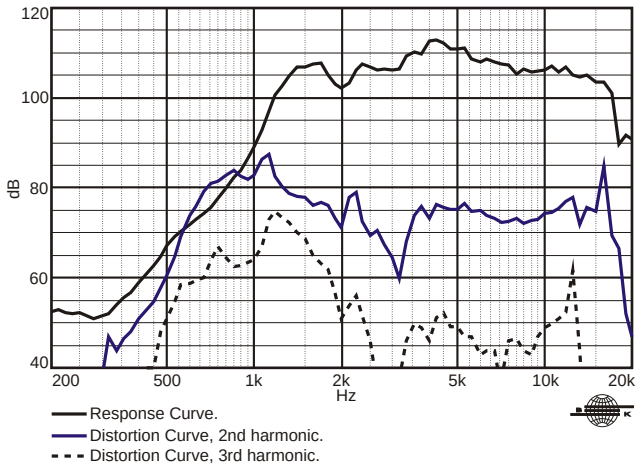
RESPONSE CURVE MEASURED W/ HM11-25 HORN INSIDE AN ANECHOIC CHAMBER, 1 W / 1 m



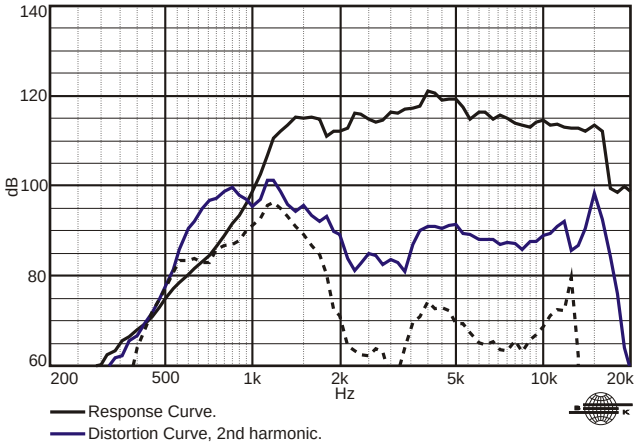
IMPEDANCE AND PHASE CURVES MEASURED W/ HM11-25 HORN IN FREE-AIR.



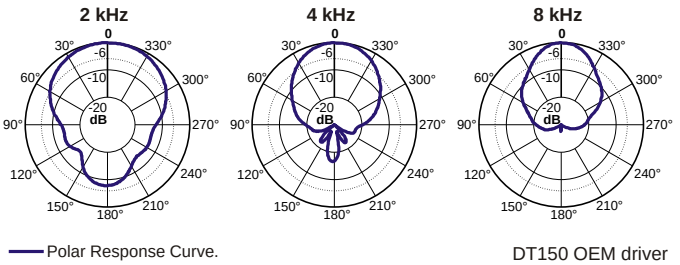
HARMONIC DISTORTION CURVES W/ HM11-25 HORN, 1 W / 1 m.



HARMONIC DISTORTION CURVES W/ HM11-25 HORN, 7.5 W / 1 m.



POLAR RESPONSE CURVES



DT150 OEM driver coupled to a HM11-25 horn.

HOW TO CHOOSE THE RIGHT AMPLIFIER

The power amplifier must be able to supply twice the RMS driver power. This 3 dB headroom is necessary to handle the peaks that are common to musical programs. When the amplifier clips those peaks, high distortion arises and this may damage the transducer due to excessive heat. The use of compressors is a good practice to reduce music dynamics to safe levels.

FINDING VOICE COIL TEMPERATURE

It is very important to avoid maximum voice coil temperature. Since moving coil resistance (R_E) varies with temperature according to a well known law, we can calculate the temperature inside the voice coil by measuring the voice coil DC resistance:

$$T_B \quad T_A \quad \frac{R_B}{R_A} \quad 1 \quad T_A \quad 25 \quad \frac{1}{25}$$

T_A , T_B= voice coil temperatures in °C.
R_A , R_B= voice coil resistances at temperatures T_A and T_B, respectively.
= voice coil wire temperature coefficient at 25 °C.

Nomex®: Du Pont trademark.

Specifications subject to change without prior notice.
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